



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-9071; Directorate Identifier 2016-NM-019-AD; Amendment 39-18942; AD 2017-13-12]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Airbus Model A318 and A319 series airplanes; Model A320-211, -212, -214, -231, -232, and -233 airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes. This AD was prompted by an evaluation by the design approval holder (DAH), which indicates that the main landing gear (MLG) does not comply with certification specifications, which could result in a locking failure of the MLG side stay. This AD requires modification or replacement of certain MLG side stay assemblies. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF

PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For Airbus service information identified in this final rule, contact Airbus, Airworthiness Office–EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone: +33 5 61 93 36 96; fax: +33 5 61 93 44 51; email: account.airworth-eas@airbus.com; Internet: <http://www.airbus.com>.

For Messier-Dowty service information identified in this final rule, contact Messier-Dowty: Messier Services Americas, Customer Support Center, 45360 Severn Way, Sterling, VA 20166-8910; telephone: 703-450-8233; fax: 703-404-1621; Internet: <https://techpubs.services/messier-dowty.com>.

You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9071.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9071; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Sanjay Ralhan, Aerospace Engineer,
International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind
Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Airbus Model A318 and A319 series airplanes; Model A320-211, -212, -214, -231, -232, and -233 airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes. The NPRM published in the Federal Register on September 8, 2016 (81 FR 62035). The NPRM was prompted by an evaluation by the DAH which indicates that the MLG does not comply with certification specifications, which could result in a locking failure of the MLG side stay. The NPRM proposed to require modification or replacement of certain MLG side stay assemblies. We are issuing this AD to prevent possible collapse of the MLG during takeoff and landing.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2016-0018R1, dated September 14, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Airbus Model A318 and A319 series airplanes; Model A320-211, -212, -214, -231, -232, and -233 airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes. The MCAI states:

During studies for a new landing gear design, it was discovered that the single-locked upper and lower cardan joints of the Main Landing Gear (MLG) do not comply with the certification specifications of (CS, formerly [Joint Aviation Requirements] JAR) Part 25.607.

This condition, if not corrected, could lead to MLG side stay locking failure that, during take-off and landing, may result in damage to the aeroplane and detrimental effect on safe flight.

To address this potential unsafe condition, the MLG manufacturer developed a modification to change the single-locked MLG joint into a double-locked one. This modification is available for in-service application through Messier-Bugatti-Dowty (MBD) Service Bulletin (SB) 200-32-315 or SB 201-32-63, or Airbus SB A320-32-1429.

For the reasons described above, EASA issued AD 2016-0018 to require modification or replacement of the MLG side stay assemblies, introducing the double locking of the MLG upper and lower cardan joints.

Following new engineering evaluation, this [EASA] AD is revised to extend the compliance time. This revised [EASA] AD also clarifies the affected Part Number (P/N) references in Appendix 1 by adding Notes, and introduces some editorial changes without affecting the requirements.

You may examine the MCAI in the AD docket on the Internet at

<http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9071.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA's response to each comment.

Support for the NPRM

Air Line Pilots Association, International (ALPA), American Airlines (AAL), and Allegiant Air (Allegiant) expressed support for the NPRM.

Requests to Extend Compliance Time for the Proposed Modification/Replacement

Air France, AAL, Delta Airlines (DAL), and Virgin America (Virgin) commented that EASA has released EASA AD 2016-0018R1, dated September 14, 2016 (“EASA AD 2016-0018R1”). The commenters pointed out that EASA AD 2016-0018R1 extends the compliance time for the modification or replacement from 66 months to 120 months following a new engineering evaluation. Air France and Virgin America (Virgin) requested that the FAA refer to EASA AD 2016-0018R1. DAL also asserts that the extension would enable operators to accomplish the modification during MLG overhauls with no impact on airline operations.

We agree with the commenters’ requests to extend the compliance time for the modification or replacement. We have determined that, based on the new engineering evaluation, extending the compliance time will not adversely affect safety, and will provide operators more flexibility regarding where and when they accomplish the required actions. We have revised paragraph (g) of this AD to specify a compliance time of within 120 months after the effective date of this AD.

Requests to Refer to Updated Service Information

Allegiant and DAL requested that we revise the NPRM to refer to Airbus Service Bulletin A320-32-1429, Revision 01, dated February 29, 2016 (“Airbus Service Bulletin A320-32-1429, Revision 01”). The commenters explained that Airbus Service Bulletin

A320-32-1429, Revision 01, contains corrected part numbers for certain MLG side stay assemblies.

We agree with the commenters for the reasons provided. We have revised this AD to refer to Airbus Service Bulletin A320-32-1429, Revision 01. We have also revised this AD to provide credit for actions done before the effective date of this AD, if those actions were done using Airbus Service Bulletin A320-32-1429, dated September 10, 2015.

Request to Change Tracking Method of Completed Modification

AAL requested that we revise the NPRM to require the manufacturer to change its method of adding a modification strike to track accomplishment of the proposed modification. AAL suggested that the manufacturer develop a new part number for easier tracking of a completed modification.

We disagree with the commenter's request. We have determined that the actions required by this AD, as specified in the service information, adequately address the unsafe condition. We have not revised this AD in this regard. However, if the manufacturer revises the service information in the future, operators may request approval of an alternative method of compliance (AMOC), provided adequate data are provided to substantiate that the AMOC provides an acceptable level of safety.

Request to Postpone Release of this AD

Allegiant requested that this AD be postponed until Airbus Service Bulletin A320-32-1429, Revision 02, is published. Allegiant stated that Revision 02 will incorporate updated information described in Airbus Operators Information Transmission (OIT) 16-0028, Revision 01, dated May 26, 2016. Allegiant pointed out that the Airbus

OIT explains that there could be difficulties with accomplishing the required actions “on-wing,” and that Airbus recommends postponing accomplishment of the required actions. Allegiant asserts that Airbus Service Bulletin A320-32-1429, Revision 02, is intended to provide an airplane jacking procedure that could allow modification of the MLG while it is attached to the airplane.

We partially agree with the commenter’s request. We do not agree to delay issuance of this final rule. We have coordinated this issue with Airbus, and Airbus does not recommend postponing accomplishment of Airbus Service Bulletin A320-32-1429, Revision 01, altogether. Airbus does recommend that operators planning to do the modification/replacement “on wing” postpone accomplishment until the jacking procedure is provided. Airbus also recommends that the modification/replacement be accomplished when the airplane is “in shop” for scheduled MLG overhaul.

Operators are not required to accomplish the required modification “on wing.” We have revised paragraph (g)(1) of this AD to clarify that the modification may be done “off wing,” provided the modified MLG is reinstalled on the airplane. Additionally, as previously explained, we have extended the compliance time in this AD, effectively doubling the time in which operators have to accomplish the required actions.

Request to Change Applicability from Airplane Model to MLG Component

DAL requested that we revise the proposed applicability to apply to the MLG side stays instead of the airplane model. DAL pointed out that the MLG side stays are tracked independently from the airframe because of the 10-year overhaul requirement for the

landing gear. DAL reasons that compliance could then be tracked at the component level, simplifying compliance.

We disagree with the commenter's request. Not all U.S. operators may track the MLG parts using a method similar to that used by DAL. Therefore, while the requested change might simplify compliance tracking for DAL, it might complicate compliance tracking for other operators. We have not revised this AD in this regard.

Request to Remove Statement Regarding Method of Repair

DAL requested that we revise the proposed AD to remove the statement regarding the method of replacement specified in paragraph (g)(2) of the proposed AD. Instead, DAL recommended allowing operators to replace the MLG side stays using normal airplane maintenance manual (AMM) procedures. DAL explains that the AMM procedures include both pre- and post-modification procedures as specified in Airbus Service Bulletin A320-32-1429, Revision 01. However, DAL pointed out that, as of the effective date of this AD, paragraph (i) of the proposed AD states that only post-modification MLG side stays may be installed, so only the post-modification AMM procedures will apply. The pre-modification procedures will be removed from the AMM, and there will be no risk of de-modifying the MLG side stay.

We disagree with the commenter's request. AMMs are customizable documents that may be used for compliance with paragraph (g)(2) of this AD only with an approved method of compliance. Operators may request that their AMM be revised to show only the post-modification MLG configuration for installing new MLG side stays, or request

an AMOC to use another acceptable method for installing the MLG side stays. We have not changed this AD in this regard.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

Related Service Information under 1 CFR part 51

We have reviewed the following service information.

- Airbus Service Bulletin A320-32-1429, Revision 01, dated February 29, 2016.
- Messier-Bugatti-Dowty Service Bulletin 200-32-315, dated April 24, 2015.
- Messier-Bugatti-Dowty Service Bulletin 201-32-63, dated April 24, 2015.

The service information describes procedures for modifying the MLG side stay assembly. The Messier-Bugatti-Dowty documents are distinct since they apply to different airplane models. This service information is reasonably available because the

interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

We estimate that this AD affects 959 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Replacement or modification	9 work-hour X \$85 per hour = \$765	\$14,104	\$14,869	\$14,259,371

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2017-13-12 Airbus: Amendment 39-18942; Docket No. FAA-2016-9071; Directorate Identifier 2016-NM-019-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to the airplanes identified in paragraphs (c)(1), (c)(2), (c)(3), and (c)(4) of this AD, certificated in any category, all manufacturer serial numbers.

(1) Airbus Model A318-111, -112, -121, and -122 airplanes.

(2) Airbus Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes.

(3) Airbus Model A320-211, -212, -214, -231, -232, and -233 airplanes.

(4) Airbus Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 32, Landing Gear.

(e) Reason

This AD was prompted by an evaluation by the design approval holder, which indicates that the main landing gear (MLG) does not comply with certification specifications, which could result in a locking failure of the MLG side stay. We are issuing this AD to prevent possible collapse of the MLG during takeoff and landing.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Modification or Replacement

Within 120 months after the effective date of this AD, accomplish the action specified in paragraph (g)(1) or (g)(2) of this AD.

(1) Modify each MLG side stay assembly having a part number listed in figure 1 to paragraphs (g), (h), and (i) of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-32-1429, Revision 01, dated February 29, 2016, and the service information specified in paragraph (g)(1)(i) or (g)(1)(ii) of this AD, as applicable. The modification may be done “off wing,” provided the modified MLG is reinstalled on the airplane.

(i) For Model A318 series airplanes; Model A319 series airplanes; and Model A320-211, -212, -214, -231, -232, and -233 airplanes: Messier-Bugatti-Dowty Service Bulletin 200-32-315, dated April 24, 2015.

(ii) For Model A321 series airplanes: Messier-Bugatti-Dowty Service Bulletin 201-32-63, dated April 24, 2015.

(2) Replace the MLG side stay assembly with a side stay assembly that has been modified in accordance with paragraph (g)(1) of this AD. Do the replacement using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or The European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA).

Note 1 to paragraph (g)(2) of this AD: Additional guidance for the replacement can be found in Chapter 32 of the Airbus A318/A319/A320/A321 Aircraft Maintenance Manual.

**Figure 1 to Paragraphs (g), (h), and (i) of this AD –
Affected MLG Side Stay Assemblies**

Models	Affected Part Numbers (P/N)	Strike Number not Cancelled
A318-111, -112, -121, and -122 airplanes;	¹ 201166001-xxx	12
	¹ 201166002-xxx	12
	¹ 201166003-xxx	12
	¹ 201166004-xxx	12
A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; and	¹ 201166005-xxx	12
	¹ 201166006-xxx	12
	¹ 201166007-xxx	12
	¹ 201166008-xxx	12
	¹ 201166009-xxx	12
	¹ 201166010-xxx	12
A320-211, -212, -214, -231, -232, and -233 airplanes	¹ 201166011-xxx	12
	¹ 201166012-xxx	12
	² 201166013-000 through 201166013-030 inclusive	12
	² 201166014-000 through 201166014-030 inclusive	12
A321-111, -112, and -131 airplanes	² 201390001-000 through 201390001-040 inclusive	15
	² 201390002-000 through 201390002-040 inclusive	15
	² 201527001-000 through 201527001-025 inclusive	15
	² 201527002-000 through 201527002-025 inclusive	15
A321-211, -212, -213, -231, and -232 airplanes	² 201524001-000 through 201524001-035 inclusive	15
	² 201524002-000 through 201524002-035 inclusive	15
	² 201660001-000 through 201660001-030 inclusive	15
	² 201660002-000 through 201660002-030 inclusive	15
¹ The ‘xxx’ used in this figure can be any 3-digit combination. ² Units having a P/N with no dash number after the first 9 digits are also affected. Units having a P/N with the first 9 digits and a dash number higher than those listed, are not affected by the requirements of this AD.		

(h) Unaffected Airplanes

An airplane on which Airbus Modification (Mod) 156646, Airbus Mod 161202, or Airbus Mod 161346 has been embodied in production is not affected by the requirements of paragraph (g) of this AD, provided it is determined that no part having a part number identified in figure 1 to paragraphs (g), (h), and (i) of this AD, has been installed on that airplane since the date of issuance of the original certificate of airworthiness or the original export certificate of airworthiness. A review of the airplane

maintenance records is acceptable to make this determination, provided that these records are accurate and can be relied upon to conclusively make that determination.

(i) Parts Installation Prohibition

As of the effective date of this AD, do not install on any airplane, an MLG side stay assembly having a part number, with the strike number not cancelled, as identified in figure 1 to paragraphs (g), (h), and (i) of this AD, unless it has been modified in accordance with the requirements of paragraph (g) of this AD.

(j) Credit for Previous Actions

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Airbus Service Bulletin A320-32-1429, dated September 10, 2015.

(k) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Branch, send it to the attention of the person identified in paragraph (l)(2) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or Airbus's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(3) Required for Compliance (RC): If any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or

inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(l) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2016-0018R1, dated September 14, 2016, for related information. You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9071.

(2) For more information about this AD, contact Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (m)(3), (m)(4), and (m)(5) of this AD.

(m) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Airbus Service Bulletin A320-32-1429, Revision 01, dated February 29, 2016.

(ii) Messier-Bugatti-Dowty Service Bulletin 200-32-315, dated April 24, 2015.

(iii) Messier-Bugatti-Dowty Service Bulletin 201-32-63, dated April 24, 2015.

(3) For Airbus service information identified in this AD, contact Airbus,

Airworthiness Office– EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex,

France; telephone: +33 5 61 93 36 96; fax: +33 5 61 93 44 51; email:

account.airworth-eas@airbus.com; Internet: <http://www.airbus.com>.

(4) For Messier-Dowty service information identified in this AD, contact Messier-

Dowty: Messier Services Americas, Customer Support Center, 45360 Severn Way, Sterling,

VA 20166-8910; telephone: 703-450-8233; fax: 703-404-1621; Internet:

<https://techpubs.services/messier-dowty.com>.

(5) You may view this service information at the FAA, Transport Airplane

Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of

this material at the FAA, call 425-227-1221.

(6) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on June 19, 2017.

John P. Piccola, Jr.,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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